

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:
Rexroad, John
Serial No.: 09/193,989
Filed: November 18, 1998
For: Shrinking Net and System

Technology Center: 1700
Group Art Unit: 1771
Examiner: Lynda Salvatore

Appeal No.

APPELLANT'S BRIEF

This is an appeal from the Office Action of the Examiner dated January 30, 2006 that is the second rejection of Claims 1, 2, 4, and 5. The requisite fee set forth in 37 CFR §41.20(b)(2) is filed herewith.

REAL PARTY IN INTEREST (37 C.F.R. 41.37(c)(1)(i))

John Rexroad, an individual residing in the state of Connecticut, is the real party in interest.

RELATED APPEALS AND INTERFERENCES (37 C.F.R. 41.37(c)(1)(ii))

There are no related appeals or interferences.

STATUS OF CLAIMS (37 C.F.R. 41.37(c)(1)(iii))

The current status of the claims is as follows:

Allowed claims - none

Objected claims - 3 and 6-12

Rejected claims - 1, 2, 4, and 5.

STATUS OF AMENDMENTS (37 C.F.R. 41.37(c)(1)(iv))

After the Office Action of 01/30/2006, Applicant did not amend any currently pending claims.

SUMMARY OF CLAIMED SUBJECT MATTER (37 C.F.R. 41.37(c)(1)(v))

As set forth in Claim 1, the present invention is a net system comprising a frame having at least two opposing frame members (Spec. p. 10, lines 9-10 and 18-19) and a net extending there between (Spec. p. 10, lines 9-10);

said net being made from a material of cords of a water soluble yarn (Spec. p. 6, lines 14-15) that exhibits high shrinkage rates when wetted with water and dried (Spec. p. 6, lines 13-14), such that said yarn reduces in length up to a point where strain is imposed on said yarn by said frame (Spec. p. 6, lines 14-19); and

means provided along one of said frame sides for causing tensioning of localized regions in said net (Spec. p. 5, lines 16-23).

As set forth in claim 2, the net in claim 1 is comprised of weft members and perpendicularly extending warp members (Spec. p. 5, lines 7-9) connected to a border member (Spec. p. 5, lines 1-7) which intersect together with one another at intersections or nodes (Spec. p. 5, lines 9-11), and wherein one of said border, weft and warp members is made in whole or in part from a shrinkable material when wetted and dried (Spec. p. 5, lines 11-14).

As set forth in claim 4, the frame in claim 2 includes a plurality of adjustment bolts with receive a border member of said net (Spec. p. 5, lines 16-23).

As set forth in claim 5, the net in claim 2 is installed on a frame prior to shrinkage (Spec. p. 10, lines 11-18).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL
(37 C.F.R. 41.37(c)(1)(vi))

1. Whether claims 1, 2, 4, and 5 are unpatentable under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No. 5,582,266 issued to Rexroad et al. ("Rexroad '266).
2. Whether claims 1, 2, 4, and 5 are unpatentable for not claiming a positive limitation.

ARGUMENT (37 C.F.R. 41.37(c)(1)(vii))

I. **REJECTION UNDER 35 U.S.C. §102(b) OVER U.S. PAT. NO. 5,582,266
ISSUED TO REXROAD ET AL.**

A. **CLAIM 1**

1. **Because Rexroad '266 does not contain every element of the
present invention, it cannot anticipate Applicant's invention.**

For a claim to be rejected under 35 U.S.C. §102(b), it must be anticipated by the prior art. See *Helifix Ltd. v. Blok-Lok Ltd.*, 208 F.3d 1339 (Fed. Cir. 2000) (stating, "[t]o be anticipating, a prior art reference must disclose 'each and every limitation of the claimed invention[,] . . . must be enabling[,] and must describe . . . [the] claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention'"). Here, because Rexroad '266 does not meet every element of claim 1, there cannot be anticipation under 35 U.S.C. §102(b).

Specifically, claim 1 includes the limitation that a water soluble yarn exhibits high shrinkage rates when wetted with water and dried such that the yarn reduces in length up to a point where strain is imposed on the yarn by the frame. Applicant's specification makes clear on page 6, lines 14-19 that the claimed water soluble shrinkable yarns react to wetting by reduction in length up to the point where strain is imposed on the yarns by an outside force, such as a rigid frame. In other words, the net comprised of the water soluble shrinking yarns will reduce in size up to a point where, the frame to which it is attached, opposes any further shrinkage.

The Examiner has indicated that the nylon yarn disclosed in Rexroad '266 is equivalent to the high shrinkage yarn of the present invention. (Examiner's Office Action of

01/30/2006). Applicant respectfully disagrees with this analysis. Specifically, in Rexroad '266, the disclosed shrinking of the nylon yarns occurs when they are exposed to a treating process that includes dyeing and dipping them in a solution. Nowhere in Rexroad '266 is it disclosed that the nylon yarns shrink to a point where an outside force is imposed on the yarns.

Specifically, Rexroad '266 discloses that nylon is not resistant to ultraviolet light and therefore must be treated to prevent the negative effects of exposure to such light. (Col. 1, lines 18-20). The treating process includes dyeing the nylon by dipping it in a chemical (other than water) solution. (Col. 1, lines 20-39). This treating process causes the shrinkage of the nylon as a consequence of dipping the nylon in the chemicals. (Col. 1, lines 20-39). Because Rexroad '266 does not disclose that the nylon is dipped in a water solution to cause high shrinkage, not every element of the present invention is included in Rexroad '266 and therefore, Rexroad '266 does not anticipate the present invention.

Further, Rexroad '266 does not disclose that the shrinkage of the nylon is to a point where an outside force is imposed on the nylon yarn. The disclosure in Rexroad '266 actually states the opposite. Specifically, Rexroad '266 teaches that the nylon is shrunk in the treatment process *prior* to installing it on to a frame, and the nylon will undesirably stretch while attached to the frame. (Col. 1, lines 23-27). Because Rexroad '266 does not disclose that the nylon is shrunk to a point where an outside force is imposed on it, not every element of the present invention is included in Rexroad '266 and therefore, Rexroad '266 does not anticipate the present invention.

Additionally, Rexroad '266 does not disclose that the yarn used in the disclosed mesh is water soluble. The yarns disclosed in Rexroad '266 are nylon (Col. 6, lines 49-53),

DACRON polyester (Col. 6, lines 49-53), and polypropylene (Col. 6, lines 49-53). None of these yarns are water soluble by definition of their chemical structures. On the other hand, in claim 1 of the present invention, the yarn is claimed to be water soluble. Because Rexroad '266 does not disclose that the yarns used in the mesh are water soluble, not every element of the present invention is included in Rexroad '266 and therefore, Rexroad '266 does not anticipate the present invention.

2. Applicant's Claim 1 claims a positive structural feature of the present invention.

The Examiner has indicated that the applicant is attempting to claim a future property of the water soluble yarn disclosed by Applicant. (Examiner's Office Action of 01/30/2006, p. 2). Applicant respectfully disagrees with the Examiner. All of Applicant's limitations in claims 1, 2, 4, and 5 are positive limitations that define Applicant's claimed invention. *See, Application of Krodel*, 223 F.2d 285, 289 (CCPA 1955) (stating that a claim includes a positive limitation when a *required* result occurs rather than a *desired* result)¹.

Additionally, the Examiner has indicated that the limitation in claim 1 that the "yarn exhibits high shrinkage rates when wetted with water and dried such that said yarn reduces in length up to a point where strain is imposed on said yarn by said frame" is not considered a positive limitation since it depends on future use, exposure to certain conditions and/or placement of the net system. (Examiner's Office Action of 01/30/2006, p. 3). Again, Applicant respectfully disagrees with the Examiner's contention. Specifically, the Applicant is claiming a yarn that significantly reduces in length when wetted with water and dried. The characteristics and physical properties of the yarn are exhibited when it is wetted with water.

¹ *South Corp. v U.S.*, 690 F.2d 1368, 1369 (Fed. Cir. 1982) (holding that the holdings of the predecessor courts, namely, the United States Court of Claims and the United States Court of Customs and Patent Appeals, shall be binding as precedent in the Federal Circuit).

This is a specific, positive limitation of the yarn disclosed in claim 1 that limits the type of water soluble yarn that the Applicant is claiming as part of the invention.

B. CLAIM 2

Dependent claim 2 was also rejected under 35 U.S.C. §102(b) based on Rexroad '266. In dependent claim 2, all of the elements of claim 1 are claimed in addition to the particular construction of the net. Specifically, it is disclosed that the net is comprised of weft members and perpendicularly extending warp members connected to a border member which intersect together with one another at intersections or nodes, and the weft, warp, and border members are made of shrinkable material. (Applicant's Claim 2). Because this is a dependent claim and adds further limitations to independent claim 1, it should be allowed in dependent form. See, *In re Johnson*, 589 F.2d 1070, 1080 (CCPA 1978).

Additionally, as stated above, Rexroad '266 does not disclose a material that shrinks when wetted with water and dried.

C. CLAIM 4

Dependent claim 4 was also rejected under 35 U.S.C. §102(b) based on Rexroad '266. In Applicant's claim 4, all of the elements of claim 1 are claimed in addition to a plurality of adjustment bolts that receive a border member of the net. The Examiner has equated Applicant's adjustment bolts with the C-rings disclosed in Rexroad '266. Applicant respectfully disagrees with the Examiner's equation of the adjustment bolts of the present invention with the C-rings of Rexroad '266.

Specifically, in Applicant's invention, the adjustment bolts are used to attach and, as the name explicitly implies, adjust the net to the frame. In contrast, as disclosed in Rexroad

'266, the C-rings are used to "nonreleaseably capture" a portion of the perimeter of the mesh structure and border member in a fastened condition. (Rexroad '266, Column 2, lines 49-51). The C-rings disclosed in Rexroad '266 do not allow the mesh to be adjusted once it is fixed in place. (Rexroad '266, Column 2, lines 49-51). In fact, Rexroad '266 discloses that the C-rings are used in the place of stitching, which is permanent. (Rexroad '266, Column 2, lines 50-53). Therefore, the C-rings disclosed in Rexroad '266 are not equivalent to Applicant's adjustment bolts, and Rexroad '266 does not anticipate Applicant's claim 4. In addition, dependent claim 4 should be allowed as written because it further adds a limitation to independent claim 1. *See, In re Johnson*, 589 F.2d at 1080.

D. CLAIM 5

Dependent claim 5 was also rejected under 35 U.S.C. §102(b) based on Rexroad '266. In Applicant's claim 5, all of the elements of claims 1 and 2 are claimed in addition to installing the net on the frame prior to shrinkage. The Examiner has equated Applicant's frame with the border edges of the safety net disclosed in Figure 3 of Rexroad '266. Applicant respectfully disagrees with the Examiner's equation of the frame of the present invention with the border edges of Rexroad '266.

In particular, in Rexroad '266, the border members (41, 41', 43, and 43') are not similar to the frame disclosed in Applicant's invention. However, even assuming *arguendo*, that a similar frame is disclosed in Rexroad '266, nowhere is it disclosed that the safety net is attached to the frame *prior* to shrinking. In fact, Rexroad '266 discloses that the nylon net is treated (i.e. shrunk) first, and then installed on a support structure at the job site. (Rexroad '266, Col. 1, lines 21-28). While Rexroad '266 does disclose the use of sag control of an installed net, this does not equate with the shrinking process claimed in Applicant's claims 1,

2, and 5. Additionally, if the Examiner is equating the border members (41, 41', 43, and 43') to the frame disclosed in Applicant's invention, there can be no anticipation because the nylon yarns do not reduce in length up to a point where the border members (41, 41', 43, and 43') impose a strain on the nylon yarns. Therefore, Rexroad '266 does not anticipate Applicant's invention. In addition, dependent claim 5 should be allowed as written because it further adds a limitation to independent claim 1. *See, In re Johnson*, 589 F.2d at 1080.

CLAIMS APPENDIX (37 C.F.R. 41.37(c)(1)(viii))

1. A net system comprising a frame having at least two opposing frame members and a net extending there between;

said net being made from a material of cords of a water soluble yarn that exhibits high shrinkage rates when wetted with water and dried, such that said yarn reduces in length up to a point where strain is imposed on said yarn by said frame; and means provided along one of said frame sides for causing tensioning of localized regions in said net.

2. A system as defined in claim 1 wherein said net is comprised of weft members and warp members connected to a border member which intersect together with one another at intersections or nodes, and wherein one of said border, weft and warp members is made in whole or in part from a shrinkable material when wetted and dried.

3. A system as defined in claim 1 wherein said tensioning means includes a connecting rod extending along one of said frame members and threaded between the border of the weft and warp members.

4. A system as defined in claim 2 wherein said frame includes a plurality of adjustment bolts which receive a border member of said net.

5. A system as defined in claim 2 further characterized in that the net is installed on a frame prior to shrinkage.

6. A system as defined in claim 2 wherein a locating cable is provided and is threaded through the weft and warp members immediately adjacent to the border member and at the

corners of the frame is disposed a single eyebolt which is threaded to the frame at a forty-five degree angle.

7. A system as defined in claim 2 wherein said net includes a splice between said border and a weft or warp member, said splice includes a twisted warp or weft member and a twisted cord border member which weft or warp member is passed through one strand of the boarder member separating the remaining members in the border member and then is tucked under two or more strands of itself and then wetted and allowed to dry.

8. A system as defined in claim 2 wherein said net includes a node at the intersection of weft and warp members wherein the weft member passes through the warp member and the warp member passes through the weft member and then is wetted and allowed to dry.

9. A system as define in claim 2 wherein said warp or weft members have an eyelet formed by the end of the weft or warp member piercing back on itself through one cord of the weft or warp member after forming a loop and then again piercing back on itself in an opposite 180° direction and wetted and allowed to dry.

10. A system as defined in claim 2 wherein said net includes a splice of a braided rope made between two end to end pieces, wherein one rope is passed through the other rope and the other rope passes through the one rope and thereafter the distal end of the one rope is turned 90° and passes through the side of the other rope while distal end of the other rope is turned 90° and passes through the side of the one rope braid rope, the two ropes are locked together once wetted and dried.

11. A system as defined in claim 2 wherein said net includes the warp or weft members each having a loop at one end thereof created by separating the end cords thereof and then passed back through the separated cords back in an over and under fashion into the double

back portion of the rope member and locking the doubled back portion by wetting and then drying.

12. A system as defined in claim 2 wherein said net includes an end to end splice of braided rope wherein one rope member is passed between one cord member of the other rope and the other rope is passed under one cord member of the one rope and the process is repeated linearly one or more times with both ends until no ends of the cord members are left dangling, the passing of rope members is locked by wetting and then drying of the one and the other rope members.

EVIDENCE APPENDIX (37 C.F.R. 41.37(c)(1)(ix))

NONE

RELATED PROCEEDINGS APPENDIX (37 C.F.R. 41.37(c)(1)(x))

NONE

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Respectfully submitted,

A handwritten signature in cursive script that reads "Carey Brandt Anthony".

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